| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|----------|--------|--|---|---------------------|---------|------------------|
| L1 | 188784 | (laser\$1 diode\$1 led\$2) same (waveguide\$1 core\$1 fib\$3) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2006/03/20 07:36 |
| L2 | 634 | (amorphous\$3) with (waveguide\$1) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2006/03/20 07:37 |
| L3 | 217253 | PVD (vapor near3 deposit\$4) PECVD (vapor-deposit\$4) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2006/03/20 07:38 |
| L4 | 159 | L1 and L2 and L3 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2006/03/20 07:38 |
| L5 | 143 | L4 and (@ad<"20020827" @rlad<"20020827") | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2006/03/20 07:41 |
| L6 | 21 | L5 and (smooth\$4 with waveguide\$1) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2006/03/20 07:42 |
| S3 | • 1 | ("20030175142").PN. | US-PGPUB | OR | OFF | 2006/03/20 07:35 |
| S4 | . 0 | ("2003063883").PN. | US-PGPUB | OR | OFF | 2005/02/08 16:34 |
| S5 | 0 | ("2003063883").PN. | US-PGPUB | OR | OFF | 2005/02/08 16:35 |
| S6 | 1 | ("20030063883").PN. | US-PGPUB | OR | OFF | 2005/02/08 17:16 |
| S7 | 2519 | (slab near3 (waveguide\$1 wave-guide\$1 (wave adj guide\$1))) and (optic\$4) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/02/08 17:19 |

| S8 | 855515 | (laser\$1 near3 diode\$1) LED\$2 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/02/08 17:18 |
|-----|--------|---|---|------|-----|------------------|
| S9 | 46 | (slab near3 (waveguide\$1 wave-guide\$1 (wave adj guide\$1))) same ((laser\$1 near3 diode\$1) LED) same coupl\$4 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/02/08 17:18 |
| S10 | 33 | S9 and @ad<"20020827" | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/02/08 17:19 |
| S11 | 2 | S7 and (bias\$3 near3 pulse\$1 near3 DC near3 (pvd (plasma near3 vapor near3 deposition))) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/09/27 13:00 |
| S12 | | S11 and @ad<"20020827" | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/02/08 17:21 |
| S13 | 94 | S7 and (pvd (plasma near3 vapor near3 deposition)) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/02/08 17:22 |
| S14 | 2 | S7 and (pulse\$1 near3 dc near3 (pvd (plasma near3 vapor near3 deposition))) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/09/27 13:00 |
| S15 | 3 | S7 and (pulse\$1 near3 (pvd (plasma near3 vapor near3 deposition))) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR . | OFF | 2005/09/27 13:00 |

| S16 | 149 | (pulse\$1 near3 (pvd (plasma near3 | US-PGPUB; | OR | OFF | 2005/02/08 17:24 |
|-----|------|---|---|-----------|-----|------------------|
| | | vapor near3 deposition))) | USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | | J. | 2003/02/00 1/121 |
| S17 | 8 | (pulse\$1 near3 dc near3 (pvd (plasma near3 vapor near3 deposition))) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/02/08 17:24 |
| S18 | 3 | S17 and @ad<"20020827" | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/02/08 17:24 |
| S19 | 5458 | ((laser near3 diode\$1) LED) with ((wave adj guide\$1) waveguide\$1 wave-guide\$1) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/06 11:49 |
| S21 | 9595 | ((refractive refraction) near4 (index indicies) with (high higher greater larger)) same ((wave adj guide\$1) waveguide\$1 wave-guide\$1) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/06 11:50 |
| S22 | 631 | (PVD PECVD ((plasma plasma-enhanced (plasma adj enhanced)) near3 vapor near3 deposit\$6)) same ((wave adj guide\$1) waveguide\$1 wave-guide\$1) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/06 11:56 |
| S23 | 54 | S19 and S21 and S22 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/06 11:52 |
| S24 | 44 | S23 and @ad<"20020827" | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR . | OFF | 2005/03/07 07:51 |

| S25 | 283 | (PVD PECVD ((plasma plasma-enhanced (plasma adj enhanced)) near3 vapor near3 deposit\$6)) same ((DC (direct near3 current)) near4 bias\$3) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/06 11:57 |
|-----|------|--|---|------|-----|------------------|
| S26 | 1 | S25 and S24 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/06 12:10 |
| S27 | 1 | ("4508163").PN. | USPAT | OR . | OFF | 2005/03/07 07:50 |
| S28 | 1 | ("4508164").PN. | USPAT | OR | OFF | 2005/03/07 07:50 |
| S29 | 5458 | ((laser near3 diode\$1) LED) with ((wave adj guide\$1) waveguide\$1 wave-guide\$1) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/07 12:36 |
| S30 | 9595 | ((refractive refraction) near4 (index indicies) with (high higher greater larger)) same ((wave adj guide\$1) waveguide\$1 wave-guide\$1) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/07 07:51 |
| S31 | 631 | (PVD PECVD ((plasma plasma-enhanced (plasma adj enhanced)) near3 vapor near3 deposit\$6)) same ((wave adj guide\$1) waveguide\$1 wave-guide\$1) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/07 07:51 |
| S32 | 54 | S29 and S30 and S31 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/07 07:51 |
| S33 | 44 | S32 and @ad<"20020827" | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/07 08:04 |
| S34 | 1 | ("6125225").PN. | USPAT | OR | OFF | 2005/03/07 07:51 |

| S35 | 8678 | (wave-guide\$1 waveguide\$1 (wave adj guide\$1)) same (((refractive refraction) near4 (index indicies)) near5 (high\$4 greater large\$1)) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/07 08:07 |
|-------|------|---|---|----|-------|------------------|
| S36 | 1044 | (wave-guide\$1 waveguide\$1 (wave adj guide\$1)) same ((diode\$1 LED\$2) near8 array\$1) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/07 08:08 |
| S37 | 2800 | (wave-guide\$1 waveguide\$1 (wave adj guide\$1)) same (smooth) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/07 08:08 |
| S38 _ | 3881 | (wave-guide\$1 waveguide\$1 (wave adj guide\$1)) same (smooth\$4) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF . | 2005/03/07 08:08 |
| S39 | 43 | S35 and S36 and S38 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/07 08:09 |
| S40 | 42 | S39 and @ad<"20020827" | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/07 13:30 |

| C41 | 122 | ((((0522071) ((20164021) | LICDAT | OD | OFF | 2005/02/07 10:20 |
|---------|---------------|---|----------------------|------|-----|------------------|
| S41 | 122 | (("6052397") or ("3616403") or | | OR | OFF | 2005/03/07 10:28 |
| | | ("3850604") or ("4111523") or | | | | |
| | | ("4437966") or ("4619680") or | | | | |
| | | ("4710940") or ("4785459") or | | | | , |
| | | ("4915810") or ("4978437") or | 1 | | | |
| | | ("5085904") or ("5107538") or | | | | |
| | | ("5119460") or ("5174876") or | | | | |
| | | ("5196041") or ("5200029") or | | İ | | |
| | | ("5206925") or ("5225288") or | | | | |
| | | ("5237439") or ("5252194") or | | | | Ī |
| | | ("5287427") or ("5303319") or | | | | |
| | | ("5306569") or ("5355089") or | | | | |
| | | ("5381262") or ("5427669") or | | | · | |
| | | ("5457569") or ("5475528") or | | | | |
| | | ("5483613") or ("5499207") or | | · | | |
| | | ("5555127") or ("5563979") or | | | | |
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| | | ("5565071") or ("5591520") or | | | | |
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| | | ("5607789") or ("5613995") or | | • | | |
| | | ("5654054") or ("5654984") or | | | · | |
| | | ("5686360") or ("5693956") or | | İ | | |
| | | ("5718813") or ("5719976") or | | | | |
| | | ("5731661") or ("5755938") or | | | | |
| | | ("5757126") or ("5762768") or | | | | |
| | | ("5771562") or ("5792550") or | | | | |
| | | ("5811177") or ("5830330") or | | | | |
| | | ("5831262") or ("5841931") or | | | | |
| | | ("5847865") or ("5849163") or | | | | |
| | | ("5853830") or ("5855744") or | | | | |
| | | ("5870273") or ("5882946") or | | | | |
| .] | | ("5900057") or ("5930584") or | | | | |
| | | ("5942089") or ("5948215") or | | | | |
| İ | | ("5952778") or ("5961682") or | 1 | | | |
| | | ("5966491") or ("5977582") or | | | | |
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| | , | ("6001224") or ("6004660") or | , | | | |
| | | ("6024844") or ("6046081") or | | | | , |
| | | ("6051114") or ("6051296") or | | | | |
| | | ("6057557") or ("6058233") or | | | | |
| | | ("6071323") or ("6077642") or | 1 . | | | |
| | | ("6080643") or ("6093944") or | | | | |
| | | ("6106933") or ("6146225") or | | | | · |
| | | ("6157765") or ("6162709") or | | | | |
| | | ("6165566") or ("6176986") or | | | | |
| | | ("6197167") or ("6198217") or | | | | |
| | | ("6204111") or ("6210544") or | | | | • |
| | | ("6214660") or ("6236793") or | | | | |
| | | ("6248291") or ("6248640") or | 1 | | | |
| | | ("6261917") or ("6280585") or | | | | |
| | | ("6287986") or ("6290822") or | 1 | | • | |
| | | ("6300215") or ("6302939") or | | | | |
| | | ("6344419") or ("6350353") or | | | | |
| | | ("6358810") or ("6365319") or | | | | |
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| | | ("6409965") or ("6413382") or | | | | |
| | | ("6413645") or ("6416598") or | | | | |
| | | ("6423776") or ("6433380") or | | | | |
| 3/20/20 | 06 7:58:10 AN | ("6444750")-or-("6488822")-or- | | | | Page 6 |
| C:\Docu | ments and Se | / ("6506289") | \Workspaces\10650461 | .wsp | | |
| ,5000 | | | | • | | |
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|-----|----|---|---|------|-----|------------------|
| S42 | 19 | (("20010027159") or ("20020033330") or ("20020106297") or ("20020134671") or ("20020170821") or ("20030019326") or ("20030022487") or ("20030042131") or ("20030077914") or ("20030079838") or ("2003007858") or ("20030173207") or ("20030173207") or ("20030174391") or ("20030175142") or ("20030175142") or ("20040259305") or ("20050000794") or ("200500006768")).PN. | US-PGPUB | OR | OFF | 2005/03/07 10:31 |
| S43 | 0 | S41 and ((waveguide\$1 wave-guide\$1 (wave adj guide\$1)) with fold\$4) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/07 11:12 |
| S44 | 0 | S42 and ((waveguide\$1 wave-guide\$1 (wave adj guide\$1)) with fold\$4) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/07 11:12 |
| S45 | 6 | "l42" and ((vcsel) (vertical near3 cavity near3 surface near3 laser)) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR . | OFF | 2005/03/07 12:10 |
| S46 | 0 | S40 and ((vcsel) (vertical near3 cavity near3 surface near3 laser)) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/07 12:10 |
| S47 | 0 | S40 and ((vcsel\$2) (vertical near3 cavity near3 surface near3 laser\$2)) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/07 12:11 |

| S48 | 12 | S40 and (mode near4 convert\$5) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/07 12:16 |
|-----|-----|--|---|----|-----|------------------|
| S49 | 34 | S40 and (lens) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/07 12:32 |
| S50 | 0 | S41 and (lens near3 duct) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/07 12:33 |
| S51 | 11 | S41 and (lens) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/07 12:34 |
| S52 | 3 | S41 and (vcsel (vertical with laser)) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/07 12:34 |
| S53 | 311 | ((laser near3 diode\$1) LED) with ((wave adj guide\$1) waveguide\$1 wave-guide\$1) and (((laser near3 diode\$1) LED) with (vcsel (vertical near5 laser\$1))) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/07 12:38 |
| S54 | 75 | S53 and S30 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/07 12:38 |
| S55 | 55 | S54 and @ad<"20020827" | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/07 12:38 |

| S56 | 46 | (waveguide\$1 wave-guide\$1 (wave adj guide\$1)) with (mode near3 size near3 convert\$4) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/07 13:30 |
|-----|------|--|---|------|-----|------------------|
| S57 | 23 | S56 and @ad<"20020827" | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/07 13:45 |
| S58 | 7551 | 385/31-34,129-132.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/03/07 13:46 |
| S59 | 19 | S58 and S40 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR · | OFF | 2005/09/27 13:01 |
| S60 | 0 | "10650461".apn. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/09/23 09:59 |
| S61 | 1 | "650461".apn. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/09/23 10:00 |
| S62 | 1 | "101341".apn. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/09/23 10:00 |
| S63 | 2862 | (slab near3 (waveguide\$1 wave-guide\$1 (wave adj guide\$1))) and (optic\$4) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/09/27 13:00 |

| S64 | 2 | S63 and (bias\$3 near3 pulse\$1 near3 DC near3 (pvd (plasma near3 vapor near3 deposition))) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; | OR | OFF | 2005/09/27 13:00 |
|-----|------|---|---|------|-----|------------------|
| S65 | 2 | S63 and (pulse\$1 near3 dc near3 (pvd (plasma near3 vapor near3 deposition))) | IBM_TDB US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/09/27 13:00 |
| S66 | 4 | S63 and (pulse\$1 near3 (pvd (plasma near3 vapor near3 deposition))) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/09/27 13:00 |
| S67 | 9363 | (wave-guide\$1 waveguide\$1 (wave adj guide\$1)) same (((refractive refraction) near4 (index indicies)) near5 (high\$4 greater large\$1)) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/09/27 13:01 |
| S68 | 1129 | (wave-guide\$1 waveguide\$1 (wave adj guide\$1)) same ((diode\$1 LED\$2) near8 array\$1) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/09/27 13:01 |
| S69 | 4097 | (wave-guide\$1 waveguide\$1 (wave adj guide\$1)) same (smooth\$4) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR . | OFF | 2005/09/27 13:01 |
| S70 | 46 | S67 and S68 and S69 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/09/27 13:01 |
| S71 | 42 | S70 and @ad<"20020827" | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/09/27 13:01 |

| S72 | 8040 | 385/31-34,129-132.ccls. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/09/27 13:01 |
|-----|------|-----------------------------------|---|------|-----|------------------|
| S73 | 19 | S72 and S71 | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/09/27 13:01 |
| S74 | 1 | "101341".apn. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2006/03/19 19:29 |
| S75 | 218 | (amorphous\$4 near3 waveguide\$1) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR . | OFF | 2006/03/19 19:29 |
| S76 | 138 | (amorphous\$4 near2 waveguide\$1) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR . | OFF | 2006/03/19 19:29 |